

ITEM 1  
MANAGER'S REPORT NO. 46  
COUNCIL MEETING 1984 07 09

RE: LETTER FROM BURNABY 1984 SUMMER GAMES SOCIETY  
6037 MARLBOROUGH AVENUE, BURNABY, B.C., V5H 3L6  
FIREWORKS DISPLAY IN CONJUNCTION WITH THE BAND TATTOO

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendations of the Director-Fire Services be adopted.

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TO: MUNICIPAL MANAGER  
FROM: DIRECTOR-FIRE SERVICES  
SUBJECT: FIREWORKS DISPLAY IN CONJUNCTION WITH THE BAND TATTOO, B.C.  
SUMMER GAMES, EVENING 1984 JULY 19; CORRESPONDENCE AND PETITIONS  
REGULAR COUNCIL MEETING, 1984 JULY 09 REFERS.

FIRE DEPARTMENT  
1984 JULY 03


RECOMMENDATIONS:

1. As provided for under Section 933(1)(a) Province of British Columbia Municipal Act, THAT Council authorize the President of the 1984 B.C. Summer Games to hold a fireworks display the evening of 1984 July 19, in conjunction with the Band Tattoo, to mark the opening ceremonies of the B.C. Summer Games.
2. THAT such fireworks display be in accordance with the Manual of Display Fireworks, issued by the Explosives Division, Department of Energy, Mines and Resources, Ottawa.
3. THAT a copy of this report be sent to Burnaby Summer Games Society, 6037 Marlborough Avenue, Burnaby, B.C., V5H 3L6

REPORT

To mark the opening ceremonies of the B.C. Summer Games, the Burnaby 1984 Summer Games Society, wish to conduct a fireworks display at the Simon Fraser University on the evening of 1984 July 19. This display will be conducted in accordance with the Manual of Display Fireworks issued by the Explosives Division, Department of Energy, Mines and Resources, Ottawa.

For the information of Council, ATTACHMENT "A" defines the necessary safety measures required under the Manual of Display Fireworks, measures which will be strictly enforced by the Burnaby Fire Department should Council approve the President of 1984 B.C. Summer Games request.

  
T.G. WAIN  
DIRECTOR-FIRE SERVICES

TGN:mc  
Attachment "A"

cc: Director Administrative & Community Services  
Municipal Solicitor  
Superintendent, R.C.M.P. Burnaby Detachment

BASIC SAFETY RULES FOR A FIREWORKS DISPLAY

PUBLIC SAFETY

The safety of the public is the prime consideration at all times. There will be times when the fireworks supervisor considers it unsafe to fire because of the location, the prevailing wind conditions or because control over the spectators has been lost. In such circumstances, regardless of the disappointment the display MUST BE STOPPED until the situation has been corrected. In the event of an accident involving negligence, the fireworks supervisor could be held responsible. It is recommended that liability insurance be taken out.

It is the fireworks supervisor's responsibility to inspect each item on the site.

AUTHORIZED FIREWORKS

Only fireworks authorized by Explosives Regulations may be purchased and used. The only legal source for such fireworks is from vendors holding Fireworks Factory or Magazine Licences.

INSTRUCTIONS FROM MANUFACTURERS

Individual fireworks must be set off strictly in accordance with the manufacturer's approved instructions. Such instructions may be printed on the case or be in the same package as the piece. Without the manufacturer's approval, no extra fireworks may be included in the display.

FIREWORKS SUPERVISOR AND ASSISTANTS

The fireworks supervisor must be at least 18 years of age. All persons assisting him must be able-bodied and not impaired at the time of the display.

There must be at least two persons, one of whom is the fireworks supervisor, constantly on duty during the discharging of the fireworks. For their own protection, it is recommended that such persons wear non-flammable clothing and gloves, protective hats, ear defenders and safety glasses. There should not be too many assistants as this renders control and supervision more difficult. Each assistant should have specific duties and familiarize himself with these duties and relevant manufacturer's instructions well in advance. Persons assigned to crowd control must have no other duties.

PROTECTION AT THE SITE

Once the fireworks have been taken to the site, the site must not be left unattended or unprotected.

DISTANCE FROM PEOPLE

This is the key to a safe and satisfying fireworks display. The fireworks included in any display must be tailored to the available space. In a small park, for example, multiple-break bombshells must not be included unless it can be guaranteed that the complete zone under the trajectory of shell, and of any falling debris will be free of people. The following minimum sizes of free zone are recommended:

- a) High-Level Displays: (Skyrockets and Bombshells)

300 feet from point of launch and the front, and in the direction of flight.  
150 feet along the flanks.

SKYROCKETS AND BOMBHELLS MUST NOT BE PERMITTED TO CROSS OVER OR BURST ABOVE ANY AREA OCCUPIED BY PEOPLE.

- b) Low-Level Displays: (Bombardos, Barrages, Mines and Tourbillions)  
150 feet.

- c) Ground-Level Displays:

(Fountains, Bouquets, Candles, Batteries, Wheels, Pigeons, Waterfalls, Illuminations and other set pieces)

75 feet.

- d) Combination Displays:

The appropriate distance given above from the particular group.

NOTE: Crowd control may be somewhat eased by advertising in advance the best vantage points from which to view the display.

#### DISTANCES FROM VULNERABLE POINTS

No fireworks may be ignited inside of, or closer than 25 feet to any building, tent, trailer, canvas shelter or motor vehicle.

No fireworks may be ignited within 600 feet of any place where explosives, gasoline or other highly flammable substances are manufactured or stored in bulk.

No fireworks may be set off within 600 feet of a hospital, nursing home, health lodge, home for the aged, school or church unless the consent of the local authority having jurisdiction and of the owner, or his agent, is obtained.

#### FIRE EQUIPMENT

Adequate fire equipment to cope with any fire which can be reasonably anticipated should be available. The type and quantity of first aid and other fire equipment should be determined in conjunction with the local firefighting authority.

#### ELECTRIC FIRING

Certain fireworks may be designed and factory assembled to be fired electrically. Electric squibs are used for this purpose and require only a battery in good condition for reliable function. Explicitly follow the manufacturer's instructions to ensure there is no misfire.

#### STORAGE OF DISPLAY FIREWORKS

The storage of fireworks as governed by Explosives Regulations is based on the gross weight of the finished fireworks excluding non-explosive accessories such as mortars. Vendors of fireworks normally will endorse shipping documents with the gross weight as well as the shipping weight.

If any quantity of display fireworks is to be sold, whether stored or not, a fireworks magazine licence is required by regulation. However, this regulation is not intended to prevent ordering through agents of a licensee for direct delivery to the purchaser. The declaration by an approved purchaser shall be held by the licensee.

Quantities not exceeding 50 pounds gross weight of display fireworks may be kept in a suitable secure and locked container located in a building which itself may not be suitable for such storage, although the area in the building must be free from flammables and other fire hazards. High-hazard fireworks must not be kept in the basement or other parts of private homes, apartment buildings or any type of dwelling.

For a maximum 250 pounds gross weight, storage must be in a warehouse, garage or similar building but for a period not exceeding one month. The building must be detached from any dwelling and situated at a safe distance (about 50 feet) from public places and thoroughfares and kept locked. The interior must be clean and dry and free from flammable substances or articles likely to cause fire. Naked flame or smoking in or near the building must not be permitted.

The storage of quantities in excess of 250 pounds gross weight must be in either a licensed magazine or in such other place as may be approved for the purpose by the Chief Inspector of Explosives.

#### TRANSPORTATION OF DISPLAY FIREWORKS

The transportation by road of fireworks is also governed by Explosives Regulations. Their intent is to minimize the risk of fire, breakdown and collision. Provided the vehicle is mechanically sound and clean, the trunk of the automobile or the cargo compartment of a station wagon or light duty truck may be used to transport all but the very largest of fireworks displays. Flammable goods must not be carried at the same time, and the vehicle must be fueled before loading. Smoking in or near the loaded vehicle must not be permitted. Passengers not directly assisting should not be carried -- don't subject your family to unnecessary risks.

When the gross weight of fireworks carried exceeds 50 pounds, "FIREWORKS" signs in six-inch letters on a contrasting background must be visible from all four sides of the vehicle. These signs serve to warn motorists, police and firemen of the additional hazard in the event of a collision or upset.

#### INSPECTION OF DISPLAY FIREWORKS

It is the responsibility of the fireworks supervisor to inspect the shipment as soon as he receives it; individual fireworks should be examined to ensure that the quickmatch fuse is intact and has a protective paper cap; that its paper wrapping has not been torn or the case split, allowing the composition to escape. Any so damaged must be laid aside and reported to the supplier. After inspection each firework should be returned to its original carton. NEVER PLACE MORE THAN ONE SIZE OF BOMBSHELL IN ANY CARTON, and ensure that the outside of the carton is marked correctly. Fireworks must be in these cartons when transported.

Each mortar must be inspected for split or bulged tubes, bases, seams, loose rivets, bolts or wooden base plugs. Damaged mortars must not be used. Only mortars supplied by the manufacturer should be used.

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